



C3J

C3J/5632

XENON THYRATRON

NEGATIVE-CONTROL TRIODE TYPE

GENERAL DATA

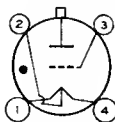
Electrical:

| | | | | |
|---|------|-----|------|--------------------------|
| Filament, Coated and | Min. | Av. | Max. | |
| Mid-tapped: | | | | |
| Voltage between pins 1 | | | | |
| and 4 | 2.4 | 2.5 | 2.6 | ac or dc volts |
| Current at 2.5 volts. | 7 | 9 | 11 | amp |
| Minimum heating time prior to | | | | |
| tube conduction | | | | 30 sec |
| Direct Interelectrode Capacitances (Approx.): | | | | |
| Grid to anode | | | | 2 μ f |
| Grid to cathode | | | | 14 μ f |
| Maximum Deionization Time | | | | 1000 μ sec |
| Maximum Critical Grid Current | | | | 10 μ amp |
| Anode Voltage Drop: | | | | |
| Average, at beginning of life | | | | 10 volts |
| Maximum, at end of life | | | | 14 volts |
| Maximum Commutation Factor ¹ , | | | | |
| averaged over first 350 volts of | | | | |
| inverse anode voltage rise. | | | 0.66 | va/ μ s ² |
| Grid Control Ratio (Approx.): | | | | |
| For conditions: 10000-ohm grid | | | | |
| resistor, circuit returns to | | | | |
| filament mid-tap, dc anode | | | | |
| voltage, and dc grid voltage | | | 200 | |

Mechanical:

| | |
|---|--------------------------------|
| Mounting Position | Any |
| Maximum Overall Length. | 6" |
| Maximum Diameter. | 1-9/16" |
| Weight (Approx.). | 3 oz |
| Cap. | Medium (JETEC No.C1-5) |
| Bulb. | T-12 |
| Base. | Medium-Metal-Shell Small 4-Pin |
| | with Bayonet (JETEC No.A4-89) |
| Basing Designation for BOTTOM VIEW. | 4CF |

Pin 1-Filament
Pin 2-Filament
Mid-Tap &
Circuit
Returns



Pin 3-Grid
Pin 4-Filament
Cap-Anode

GRID-CONTROLLED RECTIFIER SERVICE

Maximum Ratings, Absolute Values:

PEAK ANODE VOLTAGE:

| | |
|-------------------|-----------------|
| Forward | 900 max. volts |
| Inverse | 1250 max. volts |

¹ Defined as the product of the rate of current decay in amperes per microsecond just before conduction ceases and the rate of inverse voltage rise in volts per microsecond following current conduction.



C3J/5632

XENON THYRATRON

GRID VOLTAGE:

Peak, before tube conduction. . . . -100 max. volts

ANODE CURRENT:

Peak. 30 max. amp

Average. 2.5 max. amp

Overload:

Rating I*, for { 0.37 sec. 30 max. amp

duration of . . { 0.50 sec. 22.5 max. amp

{ 1 sec. 11.25 max. amp

{ 2 sec. 5.63 max. amp

{ 3 sec. 3.75 max. amp

Rating II**, for { 4 sec. 2.82 max. amp

duration of . . { 3 sec. 3.75 max. amp

{ 4 sec. 3.40 max. amp

{ 4.5 sec. 3.30 max. amp

Fault, for duration of 0.1 second
maximum 300 max. amp

AMBIENT-TEMPERATURE RANGE -55 to +75 °C

• Averaged over any period of 4.5 seconds.

* Averaged over duration of overload occurring no more than once in any period of 4.5 seconds.

** Averaged over duration of overload occurring no more than once in any period of 30 seconds.

OPERATING CONSIDERATIONS

Circuit returns should be connected to filament mid-tap (pin 2).

The *anode* of the C3J/5632 may show a red color when the tube is operated at full load.

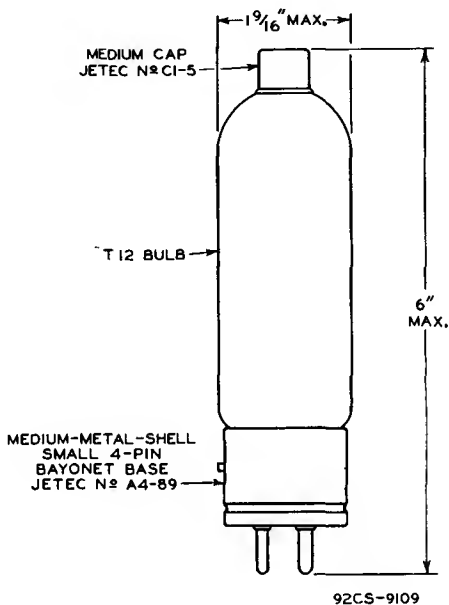
Sufficient *anode-circuit resistance*, including the tube load, must be used under any conditions of operation to prevent exceeding the current ratings of the tube.



C3J/5632

XENON THYRATRON

C3J



C3J



C3J/5632

XENON THYRATRON

OPERATIONAL RANGE
OF CRITICAL GRID VOLTAGE

RANGE IS FOR CONDITIONS WHERE:
 $E_f = 2.5 \text{ VOLTS} \pm 5\%$; CIRCUIT RE-
TURNS AND PIN 2 CONNECTED TO
FILAMENT TRANSFORMER CENTER-
TAP. THE RANGE INCLUDES INITIAL
AND LIFE VARIATIONS OF INDIVIDUAL
TUBES. GRID RESISTOR = 0 TO 10000
OHMS. AMBIENT-TEMPERATURE RANGE
= -55 TO 75°C .

